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GLASS

RECREATION OPPORTUNITY SPECTRUM

for the

TRI-CANYON AREA

of the

SALT LAKE RANGER DISTRICT
WASATCH NATIONAL FOREST

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I. Introduction

During the three-week course entitled "Outdoor Recreation Management" presented September 17, 1979 through October 5, 1979 by the College of Forest and Recreation Resources, Clemson University, it became obvious there is still a lot to be learned about recreation management. In addition to the excellent managerial development material that was presented, a new door was opened to me by the presentations concerning recreation research. The broad spectrum of topics discussed, from the "Historical Perspective of the U.S.F.S. Recreation Policy" by Dick Costley to the "Future of Recreation" by Ross Tocher, adequately covered the present state of the art. I picked for my project, the implementation of the R.O.S. System for the Tri-Canyon Area of the Salt Lake Ranger District on the Wasatch National Forest.

I have found, through talking with other Forest Service personnel and through self study of material that is available, the R.O.S. system is only one step in the Land Management Planning process. This process should ultimately assist managers in developing a recreation management plan that will attempt to meet the public demand and desires for a wide variety of recreation experience. The R.O.S. system also addresses the land capability so that recreation experiences can be made available with a minimum impact on the basic resources.

There are many approaches on how to mesh the R.O.S. and the L.M.P. processes. Since I have started on this project, the Wasatch National Forest has decided to use the Tri-Canyon area as a pilot project for the R.O.S. system, fully incorporating it into the Forest Plan.

I feel the system I have used will be further refined by myself and other Forest Specialists as we progress on the Forest Plan. Hopefully, we will develop a systematic usable product that can be used on other Forests as well. There appear to be many people working with the R.O.S. system at the present time but each person or group of persons are going at it in a similar but somewhat different way. Positive direction and better instructions are still needed so that Forests can uniformally apply the system.

Two other projects which we plan to implement on the Ranger District within the next year are Code-a-Site and Preparation of the Recreation Opportunity Guide (ROG). We have hired, under a temporary appointment, a recreation planner who has had some experience in the use of these systems. He will become completely familiar with the R.O.S. system as finally applied to the Tri-Canyon area and will be able to further improve this system by integrating Code-a-Site from the information gathered during this process. Knowledge from long-time District employees will also be utilized. Together we should be able to put together a very usable ROG.

In order for the reviewer of this paper to better understand the need for implementation of the R.O.S. system on this area of land, a description of the outdoor recreation situation is in order.

II. Outdoor Recreation

During 1979, the Tri-Canyon area received approximately 1,921,000 recreation visits for a total of 1,301,400 recreation visitor days use. This use has been increasing at about 5 percent annually over the past five years. During 1979, use increased 8 percent. This trend is expected to continue due to the high cost of gasoline and the close proximity of the canyons to the population center. Downhill skiing at developed ski areas accounts for 22 percent of the total use; camping and picnicing in developed sites, 19 percent; use of commercial resorts, 12 percent; use of recreation residences, 3 percent; and dispersed use of all types, 44 percent. Approximately 45 percent of the dispersed use is auto driving. Dispersed recreation is expected to increase due to the emphasis on the muscle sports and auto driving is expected to decrease.

There are four major ski areas within the area: Brighton, Solitude, Alta, and Snowbird. Skiing is regarded as some of the finest found anywhere in the world.

Within the area, the Forest Service operates and maintains 4 developed camping sites having a capacity of 1,105 persons at one time and 18 developed picnic sites having a capacity of 2,200 persons at one time. There are also 148 recreational summer homes permitted on National Forest lands in five separate areas.

The Tri-Canyon area is considered to be one of the most important recreation areas in the State of Utah. There are more than 700,000 people living within 15 miles of the Unit and 975,000 living within 50 miles. Salt Lake City and surrounding communities in the Salt Lake Valley have extremely close ties to the Unit for their outdoor recreation pursuits. Utah residents account for over 95 percent of summer recreation use and approximately 60 percent of the winter use.

This area is also becoming important as a national and international recreation resource because of downhill skiing. The Salt Lake City area is situated on north-south and east-west Interstate Highways and is served by a modern International airport. Ski enthusiasts all over the Nation are coming to Utah because they have found the quality of snow and the predicability of long seasons to be superior to that found in their own areas.

A portion of the Lone Peak Wilderness (the only formally designated wilderness in Utah) and the Dromedary and Olympus recommended wilderness areas are located here. When these two areas become formally classified their existence is expected to attract many more dispersed recreationists.

Outstanding scenery and climatic variations are major attractions. Fish and wildlife add to the quality of many recreation experiences. Most of the trails serving these areas are designated for hiking use.

Picnicking and camping have been major recreational pastimes on the Unit for many years. As time passed and use increased, facilities of various kinds were constructed on the more favored areas on an as-needed basis. This trend continued until most of the more accessible and desirable sites were developed for this use.

Beginning in the 1950's and continuing into the early 1960's, most of the old facilities were removed and replaced with what was then considered to be modern improvements. Some new sites were also developed during this period. Except for heavy maintenance which has replaced a few individual facilities and the reconstruction of three major sites, the facilities constructed during the 1950-1960 period are being maintained and used today. Most are located in canyon bottoms within 50 feet of live streams. There are very few new areas of National Forest land which are suitable for future development, and the cost of providing access to these areas would be very high. There are some additional tracts of private land which could be developed for recreational purposes.

Unfortunately, nearly all of the existing sites were not designed and constructed to accommodate the heavy use they are now receiving. Consequently, many environmental and public safety problems have evolved which will require large sums of money and/or drastic administrative action to correct.

Many of the existing sites do not have a balance between facility capacity and parking. Users are often forced to park in undeveloped parking areas and along the main highways. This situation has created undue traffic hazards both to the drivers as well as to recreation users who must walk along or cross these highways. Some sites have no developed parking areas at all. Overuse is occurring in some developed sites where highways serve as defacto parking areas. This parking is far in excess of the designed capacity of the recreation facility. Some parking restrictions have been imposed but are not adequate to control this problem. Major redesign and reconstruction of sites is needed to balance capacities of sited and parking areas, and more parking restrictions are needed along the highways if public safety and site qualities are to be protected. Over the past three years there have been two trailheads constructed which have helped to alleviate parking problems in these areas. Two areas are also being plowed for winter use.

Site quality on many sites has and is deteriorating rapidly. In some areas considerable topsoil is being lost annually. In areas where facilities are located too close to streams, riparian vegetation has been completely destroyed and streambanks are eroding. Tree roots are being exposed and there is a reduction in vigor and some mortality in overstory species. Improperly located facilities and general overuse has resulted in a complete loss of all vegetative ground cover in several sites. Steep slopes adjacent to developed sites are being denuded by children climbing and sliding on them, and heavy erosion has occurred in some areas. All of these factors have reduced overall esthetic qualities, water quality, and wildlife and fish habitat quality, and overall site productivity is being reduced.

In an effort to prevent some of these impacts, manpower programs have been utilized to reconstruct and harden sites to accommodate present use. New site designs are specifying a higher level of development and are bringing about a balance between parking and site capacities. Paths, parking lots, and unit pads are being located along normal use routes instead of locations which are not used because they are contrary to human tendencies and habits. Some streambanks have been stabilized and facilities which encouraged overuse have been removed. Some fences have been built to prevent children from climbing steep slopes. Limited areas have been rested and revegetated.

All of these measures have been very beneficial to preserving site quality, but they have affected only a small percentage of the area needing immediate treatment. Funds and manpower have not been available to undertake any large-scale rehabilitation program. The operation and maintenance of summer developed recreation use is a difficult and costly job in the canyons.

Vandalism is a serious problem that compounds maintenance and replacement costs. It is estimated that vandalism causes between $10,000 and $15,000 damage annually. Toilets are burned, bombed, and torn down and tables are torn apart and burned. There seems to be a relationship between vandalism and the level of maintenance provided. A high level of maintenance seems to reduce vandalism. The proper design and location of facilities also seems to reduce vandalism.

Most vandalism has occurred at the lower elevation sites in Mill Creek and Big Cottonwood Canyons, particularly at night in sites located out of view from the highway. In order to curtail some of this damage recreation patrol hours have been adjusted to late evening and sheriff personnel patrol the areas during the night and early morning hours. These measures have been fairly effective in reducing vandalism but the problem still remains.

Some of the more serious vandalism takes place during pre and post-season periods when maintenance and administrative forces are at a skeletal level.

Solid waste disposal is a costly and vexing problem. In recent years, the costs of traditional methods of handling garbage with garbage containers and regular Forest Service policing and pickup has become prohibitive, except in highly controlled reservation areas. In an effort to reduce this cost, garbage cans have been removed from sites and a program of "Pack It In--Pack It Out" has been initiated. Trash bins have been placed at strategic locations for public use. These bins are emptied by a Forest Service contractor. In the beginning this program enjoyed only limited success because of long standing public attitudes and expectations regarding service provided by Forest Service. Changes in attitudes and public awareness of environmental concerns have helped to improve public cooperation in this program.

The "Pack It In--Pack It Out" program is still not 100 percent effective. Manpower crews, supervised by Forest Service employees, pick up an estimated 450

tons on solid waste annually from roadsides, undeveloped use areas and developed sites. This material is placed in the contractor bins. The total annual cost of this service has been about $8,000. If manpower crews were not available to police the canyons, the total Forest Service cost for solid waste removal would probably exceed $20,000 annually.

Summer home and Valley residents have increased solid waste removal costs by placing refuse in receptacles provided for recreation users instead of hauling it to County landfills.

Because of water quality requirements, total containment of all human waste has been a long standing Forest Service policy and a requirement of local and State law. Except for one developed site in Little Cottonwood Canyon which is serviced by a sewer system, toilet facilities have vaults which must be pumped out once or twice a year. The Salt Lake City Water Department has been providing this service in Big and Little Cottonwood Canyons at no cost to the Forest Service for several years. The annual Forest Service cost for pumping toilets in Mill Creek Canyon has been approximately $900.

Dispersed recreation use is a major use on the area. Lack of facilities and conflicts between users and other resource uses have created problems for which economically feasible and/or publicly acceptable solutions are not readily apparent.

Conflicts between hikers and off-road vehicle users have been a continual problem and off-road vehicle use has in the past been responsible for extensive resource damage. In an effort to reduce this conflict and to minimize resource damage, an ongoing program of off-road vehicle management was initiated in 1971. A closure order was signed by the Forest Supervisor which generally restricted off-road vehicles to designated routes along the Wasatch Front on Wasatch National Forest lands. At first, this closure was protested by various user groups as being too restrictive or not restrictive enough. Great difficulty was encountered in enforcing this closure during the first couple of years. However, voluntary compliance by off-road vehicle users has been improving steadily since then.

In order to cope with off-road vehicle problems and user demands throughout the National Forest System, the President issued an Executive Order and Secretary's Regulations were promulgated in 1975 which gave national direction and legal recourse for managing this use. As a result, a Travel Plan has been developed for each National Forest which specifically spells out where and under what conditions off-road vehicles may be used. The Plan for the Wasatch National Forest was implemented on December 31, 1976 and revised April 5, 1979.

This Travel Plan has helped to minimize the growing conflict between cross-country skiers, snowmobilers, and people using undeveloped snowplay areas. Presently there is extreme competition for parking facilities and use areas. In the past, parking has caused major problems for snow removal along the highway in Big Cottonwood Canyon and major traffic problems have developed on weekends and holidays. The Forest Service through the State and County Highway departments is now providing some winter parking for cross-country skiers in each of the three canyons. This has helped to alleviate some of the parking problems.

In recent years there has been a conflict between ski touring and helicopter skiing. Helicopter skiing is controlled by a special use permit and steps are taken to minimize this conflict.

In some areas, livestock grazing has degraded the quality of the area for dispersed recreation use. In most instances there is an awareness of what the problems are and action is being taken to minimize conflicts. In others, solutions are not evident, short of removing the livestock altogether. A preferred solution would be to modify one or both uses to achieve compatibility.

Some progress is being made on the development of facilities for dispersed use. Two trailheads are now complete and one is kept open for cross-country skier parking. In some cases, trails begin in developed picnic sites which creates severe competition for available parking and usually limits picnicking use. Undeveloped areas and highway shoulders receive heavy parking use for access to trails. Except for a few toilets which are maintained by the Salt Lake City Water Department under terms of a special use permit, there are no sanitation facilities at many undeveloped trailhead areas. Because of the lack of developed facilities in some areas, overuse has occurred and sites are deteriorating.

Salt Lake City and County watershed ordinances prohibit overnight camping in undeveloped areas within Salt Lake City watersheds. There is not enough manpower available, however, to prevent much of this use.

Many of the existing trails do not meet current standards, and will require relocation and reconstruction to provide adequate site protection and to eliminate or minimize resource and user conflicts.

In some areas, particularly along the immediate Front, there is a lack of public access to the National Forest. This effectively prevents any public use of a few sizable areas of land.

Developed downhill skiing has been a major use on the Planning Unit since Alta was developed in the late 1930's. Since that time Brighton, Solitude, and Snowbird have been developed. All are now multi-million dollar developments and are key recreation resorts in the State of Utah. They involve development on private as well as National Forest lands. Associated with the skiing development are a number of lodges, restaurants and other service facilities. Solitude was involved in an ownership transfer and was not operational from 1973 to 1977. It reopened the winter of 1977-78. All facilities and use areas on National Forest lands are authorized by special use permits.

All of these developments have plans to expand their existing developed areas and to construct more lift and service facilities. Draft master plans have been submitted to the Forest Service by Alta, Brighton, Solitude, and Snowbird.

The need for and the desirability of the proposed expansion is a highly controversial issue. Two studies have been recently completed which have conflicting demand projections ranging from continuous and substantial growth for ten years, followed by a period of very moderate growth thereafter. Both studies see a need for some expansion, but the amount is not unanimously agreed upon. If the proposed new ski areas in Utah, Summit and Wasatch Counties are constructed, the demand picture will be even more unclear. In any event, if major expansion of all areas takes place, there will continue to be keen competition for skier use.

There are two other constraints that could affect the amount of expansion that could economically take place. Existing parking areas are currently being utilized beyond their capacities. On peak-use days many skiers are forced to park along the adjacent highways. This creates safety hazards to people traveling the highway and persons walking on it. There are very few areas remaining that could be developed for parking. Because of the environmental impacts associated with parking lot construction, the Forest Service currently has a policy of permitting no new parking lots and only minor expansion of existing lots. There are very little if any areas on private land that could be developed for this purpose. There is some opportunity to construct high-rise parking plazas, however, the economics of this venture is uncertain.

It is generally recognized that traffic during peak-use hours substantially exceeds the safe capacity of highway in Little Cottonwood Canyon. This is also true in Big Cottonwood Canyon, but not to the same degree. Adverse weather conditions also affect the ability of these highways to handle existing traffic. Major improvements of either of these highways to handle more traffic would create environmental impacts. Traffic regulation and expanded use of mass transit may alleviate the traffic problem somewhat but would not entirely eliminate this constraint on further development.

Quality skiing is often determined by the time a skier has to wait in lift lines. At present, except for peak-use days, this wait is acceptable at all four areas. Any major increase in the numbers of skiers will probably require new facilities to maintain a competitive status with other areas in the surrounding region.

The State of Utah Division of Parks and Recreation is presently studying the feasibility of developing a ski area in Summit County with base facilities in the Wasatch Mountain State Park. The proposed development would involve State and private lands and National Forest lands within the Uinta and Wasatch National Forests. If the project were completed as proposed, the lift system would connect the new area with Alta-Snowbird and Brighton areas in Little and Big Cottonwood Canyons respectively.

In summary, recreation development and use continues to have the greatest impact of all uses on the overall water quality within the Tri-Canyon Area. Most of these impacts have been identified. To the extent that current budget levels permit, steps are being taken to minimize these impacts.

The demand for more camping, dispersed recreation, and organized group use is now on us and we definitely need to develop a systematic approach to meet this demand within the capability of the resource.

III. Purpose

As mentioned previously, the Wasatch National Forest is just getting started on development of the Forest Plan. Forest Service policy requires that land planning and management assures that National Forest System lands provides a variety of appropriate opportunities for outdoor recreation (FSM 2302.2). This does not mean that each unit of land will provide the entire array of appropriate opportunities, by that the total Naional Forest System land base will provide this variety. Each National Forest will establish its role in providing recreation opportunities as part of the Land and Resource Management Planning process. The roles of individual forests should be identified in Regional plans and be in conformance with the National role.

Outdoor recreation resource management planning in the Forest Service is conducted as an integral part of the Land and Resource Management Planning process specified in the reguations for the National Forest Management Act of 1976. The Recreation Opportunity Planning process will assure that, (1) an appropriate variety of high quality recreation opportunities will be provided on National Forest lands to meet existing and anticipated public needs and, (2) that the basic land and water resources will be integrally managed to assure a sustained supply of recreation opportunities. The process will utilize the Recreation Opportunity Spectrum (ROS) system to provide a framework on which to define the types of outdoor recreation opportunities the public might desire, and to identify that portion of the spectrum a given National Forest might be able to provide as input to the Management Situation and Formulation of Alternatives.

The National Forest System Land and Resource Management Planning Regulations call for the integrated management of public lands to meet public needs (36 CFR 219,12 (i)). Recreation Opportunity Planning, when integrated with the Land and Resource Management Planning process provides a framework for recreation planning, management, and monitoring in accordance with these regulations (FSH 1909.21).

The inventory and analysis procedures in Recreation Opportunity Planning (ROP) provide data to describe the current situation, analysis of issues, concerns and opportunities and aid in determination of outdoor

recreation public needs. ROS on the other hand, helps clarify the Forest Service role, particularly in relation to adjacent jurisdictions, as well as to provide a framework from which to prganize and categorize issues, concerns and opportunities relating to outdoor recreation.

Completion of the Recreation Opportunity Spectrum for the Tri-Canyon area will be a major step toward the completion of the Wasatch National Forest Land Management Plan. This project can be used as a guide for completion of the rest of the Ranger District and the rest of the Forest.

IV. Methodology

Before decisions can be made concerning a recreation management plan, some concept of what types of recreation opportunities exist must be realized. It is therefore necessary to outline those opportunities available and their location. The purpose of this inventory is to fulfill that requirement.

The procedure used for this inventory is based on the recreation opportunity spectrum. The spectrum is divided into six classes ranging from Class I-Primitive to Class VI-Modern/Urban. Table I outlines the spectrum class, activity opportunities, recreational settings, and experience opportunities unique to each class.

After the criteria have been established for the various classes then inventory data collected--pertaining to the opportunities presently available--can be mapped according to the recreation opportunity spectrum. The method used in this inventory is to first define geographic boundaries for the classes and locate those activities that are occurring within those boundaries. It must be realized that although criteria have been established to determine these boundaries, in some instances it may appear rather subjective. One of the benefits of this spectrum is that it is not concrete. It is a pliable system and can be changed as the criteria are altered or the management direction shifted. What is provided here is a basis from which to start.

The planning area considered in this inventory is the Tri-Canyon Area of the Wasatch Front which includes Little Cottonwood, Big Cottonwood, and Mill Creek Canyons located on the Salt Lake Ranger District of the Wasatch National Forest.

Using the Recreation Opportunity Spectrum

The recreation opportunity spectrum (ROS) provides a useful framework for the review and evaluation of inventory data. Because the ROS focuses on specific situational attributes, Table 2, that comprise recreation

opportunity settings, managers easily correlate inventory data to the spectrum. From this, the relative availability of different opportunity settings can be determined. Moreover, because of the focus on situational attributes, managers will be able to tell how they could change the relative availability of different settings. For example, if roaded natural appearing type settings were in short supply, the inventory could indicate areas where such settings could be most easily created.

The situational attributes connected with the ROS are outlined in Table 2. These factors define the opportunity spectrum and are observable and measurable, directly under management control, related to recreationist's preferences, and is characterized by a range of conditions. The management factors are: access, other resource uses, on-site management, social interaction, acceptable visitor impacts, and acceptable regimentation.

As is illustrated in Table 2, access is characterized by difficulty, access system, and means of conveyance. Difficulty can run the full range of the spectrum from very easy in the modern/urban class to very difficult in the primitive class. The access system includes both roads and trails with a range from high grade to low grade through the spectrum. The means of conveyance considers motorized and non-motorized capabilities. Non-motorized is limited to Class III through VI.

The second factor, other resource uses, considers the compatibility of other resource uses with recreation use. The Salt Lake Planning Unit-Land Management Plan has specified certain areas of the Tri-Canyon Area as watershed with that use receiving top priority. Decisions relating to recreation, therefore, must consider this priority.

On-site management, the third factor, relates to the extent of modification, apparentness of modification, complexity of modification, and facilities. The modern-urban class represents many apparent modifications while the primitive class has none.

The social interaction factor considers the amount of interparty contacts and relative space requirements. In more primitive settings, low levels of interaction are appropriate and expected, while in a modern setting there may be high levels of interaction.

Acceptable visitor impacts refers to those impacts made on the resource (i.e., vegetative trampling, water pollution) or on other people (i.e., noise, depreciative behaviours, inappropriate activities). The modern-urban class indicates that a high degree of impact may be acceptable whereas in the primitive class it would not be appropriate.

The acceptable level of regimentation can be described, ranging from light-handed, subtle techniques, such as site design and providing visitors with information, to fairly heavy handed measures that are

authoritarian in nature and perhaps accompanied by legal sanctions. This describes the range of controls appropriate from the primitive class to the modern-urban class.

A recreation opportunity setting is the result of a specific combination of these six factors in a particular location. Alternative combinations of the factors create different opportunity settings that give recreationists many options from which they can choose. Considerations about appropriate criteria to apply for any one of the factors are largely judgmental; there are seldom any absolute standards.

Designation of an opportunity as modern-urban, primitive, etc., does not imply a single standard of development for areas within that category. For example, an area classified as modern-urban with a number of developed facilities could be made accessible only by foot. This is a management decision that would regulate the user as to means of conveyance. This is consistent with both the modern-urban class (highly regulated) and the primitive class (no motorized vehicles).

Once the land area has been classified into the ROS it can be modified as needs develop for a particular classification or as management direction changes. However, modifying one factor may result in the modification of other factors. For example, if access was made easier there is a probability that usage of that area would increase prompting more facilities and regimentation. Consideration must be given to the long-term affects of modifying any of the six factors discussed above.

In classifying the land of the Tri-Canyon Area of the Salt Lake Ranger District, an attempt was made to designate adjoining land classes in a consecutive manner through the ROS. As an example, if one area was classified as primitive then areas immediately adjacent to the primitive boundaries were classified as semi-primitive non-motorized and so on, if possible. This buffering effect will help management in its decisions and will also provide the user with less of a change of conflict with other users. However, there are inconsistencies in this inventory. Most notably are those primitive areas that are adjacent to modern-urban highway corridors. This has occurred due to formal classification of the Lone Peak Wilderness Area and the RARE II designation of the Olympus and Dromedary areas as potential wilderness areas. These potential wilderness areas are to be managed as wilderness until they are formally classified. Care must be taken in future management decisions where these inconsistencies occur. At present there are only a few trailheads where this situation exists and limited parking now helps to control the number of users. As use increases alternative methods will have to be considered to restore the inconsistency to a status in line with the parameters specified for it.

A form (Attachment A) was designed to be used to show the existing and potential recreation activities and PAOT by ROS class for each map used for the area of land covered. This form can also be used to designate the activities that are now or could take place on private land. The recreation activities can also be tied to the RIM numbers.

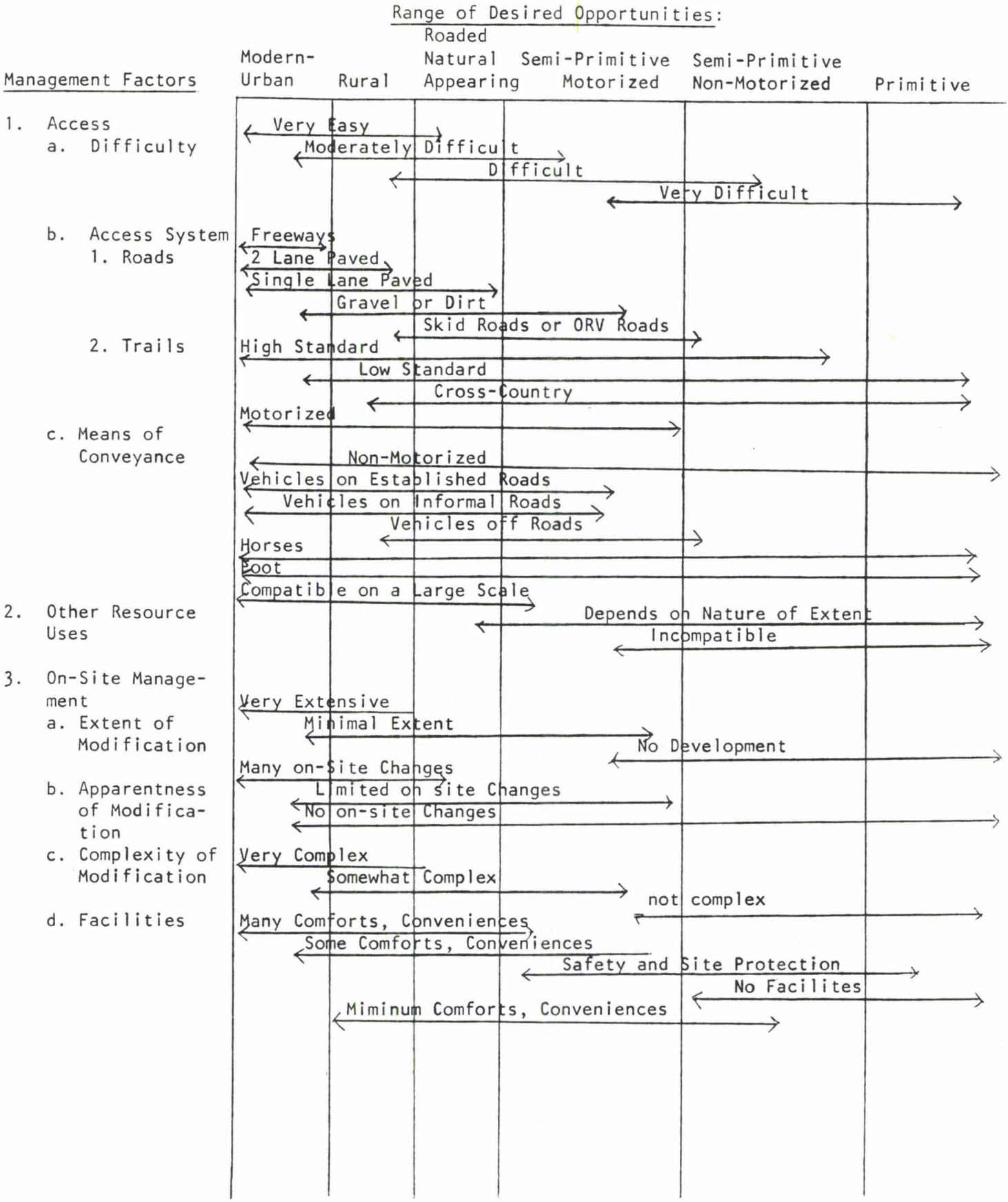
Table 1. The Outdoor Recreation Opportunity Spectrum, with associated activity opportunities, recreational setting requirements, and experience opportunities that are highly probable for each spectrum class. This is a table of general descriptions of the three components of the spectrum classes. There might be specific activity exceptions to these general characteristics.

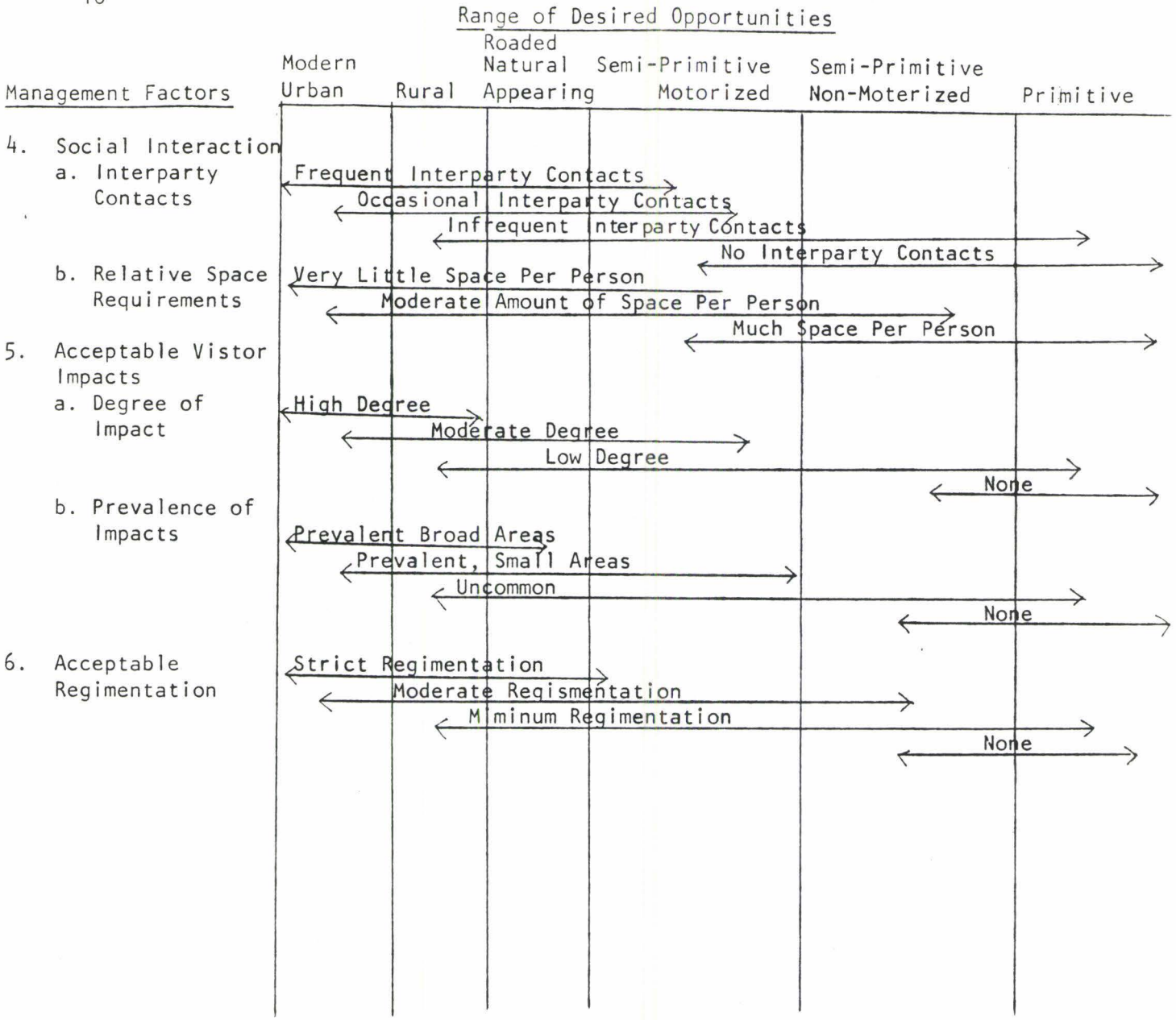
Spectrum Class	Activity Opportunities engage in	Recreational Setting to realize	Experience Opportunities
Primitive (P)	Hiking Backpacking Camping Hunting Fishing Horseback Riding Climbing (Rock or Ice) Spelunking Photography Nature Study Cross-Country Skiing Alpine Ski Touring Snowshoeing Snowplay Viewing Outstanding Scenery Enjoying Unique and/or Unusual Environments Picnicking Gold Panning	Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low & enidence of other area users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Motorized use within area is not permitted.	Extremely high probability of experiencing considerable isolation from the sights and sounds of man, independence, closeness to nature, tranquility, and self-reliance through the application of woodsmen skills in an environment that offers a high degree of challenge and risk.
Semi-Primitive non-motorized (SPNM)	Same as above	Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted.	High, but not extremely high, probability of experiencing the above listed natural environment elements.

Spectrum Class	Activity Opportunities engaged in	Recreational Setting to realize	Experience Opportunities
Semi-Primitive motorized (SPM)	Same as above, plus the following: Motorcycling 4-Wheel Driving Snowmobiling Snowcat Helicopter Skiing	Area is characterized by a predominantly natural or natural-appearing enviroment of moderate-to-large size. Concentration of users is low, but there is often evidence of other area users. The area is managed in such a way that minimum on-site controls and restrictions may be present but are subtle. Motorized use is permitted.	Moderate probability of experiencing the above-listed natural environment elements, except that there is a high degree of interaction with the natural environment. Explicit opportunity is available to use motorized equipment while in the area.
Roaded Natural Appearing (RNA)	Same as above, plus the following: Wading Gathering Forest Products Auto Touring Auto Camping Trailer Camping Organization Camping Viewing Interpretive Signs Resort-Lodging	Area is characterized by predominantly natural-appearing environment with moderate evidence of sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be low to moderate but with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonizd with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.	About equal probability to experience affiliation with other user groups and for isolation from sights and sounds of man. Opportunity to have a high degree of interaction with the natural enviroment. Challenge and risk opportunities associated with more primitive type of recreation are not very important. Practice and testing of outdoor skills might be important. Opportunites for both motorized and non-motorized forms of recreation are possible.

Spectrum Class	Activity Opportunities engaged in	Recreational Setting to realize	Experience Opportunities
Rural (R)	Same as above, plus the following: Competition Games Ice Skating Bicycling Jogging Spectator Sports Outdoor Concerts Downhill Skiing Passive Use of developed parks and open space	Area is characterized by substantially modified natural environment Resource modification and utilization practices are primarily to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of man are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.	Probability for experiencing affiliation with individuals and groups is prevalent as is the convenience of sites and opportunities. These factors are generally more important than setting of the physical environment. Opportunities for wildland challenges, risk taking, and testing of outdoor skills are generally unimportant except for specific activities like downhill skiing, for which challenge and risk-taking are important elements.
Modern-Urban (MU)	All of the activities mentioned in the above classes plus the followng: Aerial Tram Swimming	Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resources modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sights and sounds of man, on-site, are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout site.	Probability for experiencing affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. Experiencing natural environments, having challenges and risks afforded by the natural environment and the use of outdoor skills are relatively unimportant. Opportunities for competitive and spectator sports and for passive uses of highly man-influenced parks and open spaces are common.

TABLE 2 FACTORS DEFINING OUTDOOR RECREATION OPPORTUNITIES




Range of Desired Opportunities
Management Factors
Modern Urban
Rural
Roaded Natural Appearing
Semi-Primitive Motorized
Semi-Primitive Non-Moterized
Primitive
4. Social Interaction
a. Interparty Contacts
Frequent Interparty Contacts
Occasional Interparty Contacts
Infrequent Interparty Contacts
No Interparty Contacts
b. Relative Space Requirements
Very Little Space Per Person
Moderate Amount of Space Per Person
Much Space Per Person
5. Acceptable Vistor Impacts
a. Degree of Impact
High Degree
Moderate Degree
Low Degree
None
b. Prevalence of Impacts
Prevalent Broad Areas
Prevalent, Small Areas
Uncommon
None
6. Acceptable Regimentation
Strict Regimentation
Moderate Regismentation
Minimum Regimentation
None

ATTCHMENT A

BRIGHTON
(P) Potential Put (Private)

RIM No.	Existing and Potential Recreation Activities and PAOT by ROS Classes	PAOT	MU	PAOT	R	PAOT	RNA	PAOT	SPM	PAOT	SPNM	PAOT	P
	Hiking		x		x						x		
	Backpacking		x		x						x		
	Camping				x								
	Hunting		x		x						x		
	Fishing				x						x		
	Horseback Riding												
	Climbing (Rock or Ice)				x								
	Spelunking												
	Photography		x		x						x		
	Nature Study		x		x						x		
	Cross-Country Skiing		x		x						x		
	Alpine Ski Touring				x						x		
	Snowshoeing		x		x						x		
	Snowplay		x		xp								
	Viewing Outstanding Scenery		x		x						x		
	Enjoying Unique and/or Unusual Environment		x		x						x		
	Motorcycling		x		x								
	4-Wheel Driving		x		x								
	Snowmobiling		x		x								
	Snowcat		x		x								
	Helicopter Skiing												
	Picnicing		x		x						x		
	Gathering Forest Product				x						x		
	Rock Hounding				x						x		
	Gold Panning				x						x		
	Wading												
	Auto Touring		x		x								
	Auto Camping				x								
	Trailer Camping				x								
	Organization Camping		put										
	Viewing Interpretive Signs												
	Resort-Lodging		put										
	Cometition Games		x		xp								
	Ice Skating				xp								
	Bicycling		x		x								
	Jogging		x		x								
	Spectator Sports		x		x								
	Outdoor Concerts		xp										
	Downhill Skiing		x		x								
	Passive Use of Open Space		x		x						x		
	Aerial Tram												
	Swimming												

V. Literature Used

1. Draft"Recreation Opportunity Planning Guideline for Land and Resource Management Planning"- Hoots and Buist

2. The Recreation Opportunity Spectrum A Framework for Recreation Planning, Management and Research - Clark and Stankey

3. Utah SCORP Proposed Plan Outline 6/78 UORA

Contacts

1. Lance Tyler - Arapaho, Roosevelt National Forest

2. Al Ashton - Sawtooth NRA

3. Frank Elder - RO - R4

4. Neil Hunsaker - Forest Planner, Wasatch National Forest

5. Walt Grubic - Landscape Architect, Wasatch National Forest

VI. Conclusions

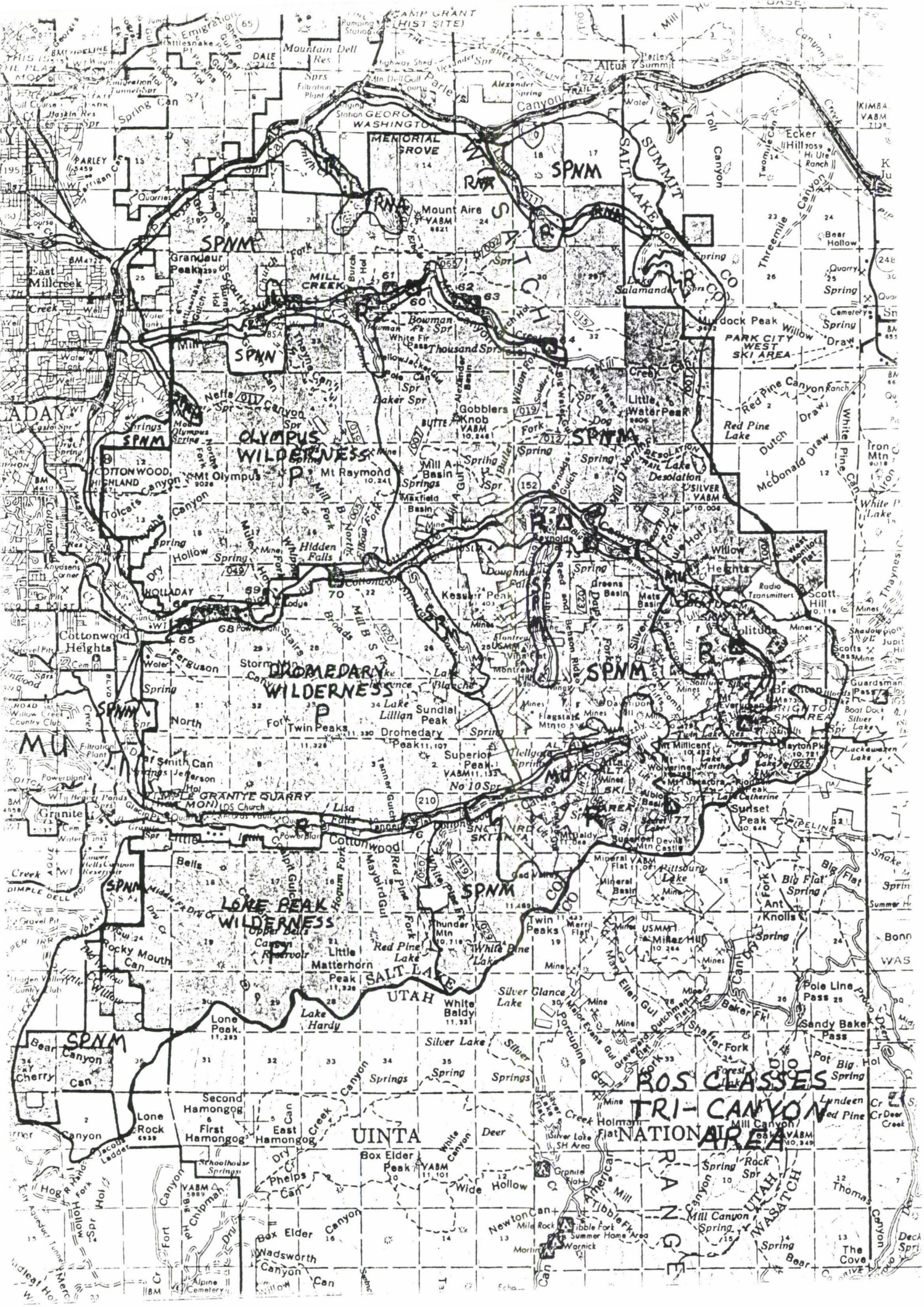
The draft paper entitled "Recreation Opportunity Planning Guidelines for Land and Resource Management Planning" prepared by Mr. Hoots and Mr. Bruist is a start in the right direction in implementing the ROS System into forest planning. I have found in working with our Forest Planner and Landscape Architects we do not fully understand the process as proposed. Use of this system will take a lot of data collection and field time.

I have tested some of the available capacity coefficients and find they do not provide a realistic figure in PAOT/Acre for the various classes in the Tri-Canyon Area. It will be necessary to establish new coefficient values for this area as well as for most of the other areas on the District.

We are way behind in our data collection as far as accurate present day use figures and projected demand for the various recreation activities are concerned. We definitely need this information to implement the capacity calculations for the system. Collecting this data will take several years of intense study of the recreation use of the area. In addition to the data collection, a systematic resource impact monitoring program needs to be developed.

Another area where I feel we are very weak is in studying the social carrying capacities of the various ROS classes. I cannot foresee in the near future the time or money becoming available to fully use many of the systems which are now proposed and/or available.

It seems quite evident the Forest will still have to rely on our best estimates of recreation demands if we are to complete our Forest Plan by 1982.


CAMP GRANT (HIST SITE)
Mountain Dell Res
Altus Summit
Parley Summit
GEORGE WASHINGTON MEMORIAL GROVE
SALT LAKE SUMMIT
Ecker Hill
Mount Aire
Grandeur Peak
East Millcreek
MILL CREEK
Bowman Spr
Thousand Spr
Lake Salamander
Murdock Peak
PARK CITY WEST SKI AREA
Little Water Peak
Red Pine Canyon
Red Pine Lake
Dutch Draw
McDonald Draw
Lake Desolation
Gobblers Knob
Mt Raymond
Mt Olympus
OLYMPUS WILDERNESS
COTTONWOOD HIGHLAND
Mill A Basin
Maxfield Basin
Hidden Falls
Doughnut Falls
Kessler Peak
Greens Basin
Scott Hill
Solitude
Brighton
Cottonwood Heights
DROMEDARY WILDERNESS
Lake Lillian
Sundial Peak
Dromedary Peak
Twin Peaks
Superior Peak
Mt Millicent
Dayton Pk
Sunset Peak
Granite
LITTLE GRANITE QUARRY
Lisa Falls
Cottonwood
Bells
LONE PEAK WILDERNESS
Rocky Mouth Can
Little Matterhorn Peak
Thunder Mtn
Red Pine Lake
White Pine Lake
Miller Hill
Ant Knolls
Big Fly Spring
Pole Line Pass
Sandy Baker Pass
Silver Glance Lake
Lone Peak
Lake Hardy
White Baldy
SALT LAKE
UTAH
Silver Lake
Silver Lake Flat
Porcupine Gul
Ellen Gul
Dutchman Flat
Baker Fk
Shafter Fork
Bear Canyon
Cherry Can
Second Hamongog
First Hamongog
East Hamongog
Lone Rock
Jacobs Ladder
UINTA
Box Elder Peak
Deer Creek
Holmans Flat
TRI-CANYON AREA
NATIONAL FOREST
Rock Spr
Granite Flat
Tibble Fk
Summer Home Area
Mill Canyon
Mill Canyon Spring
Newton Can
Box Elder Canyon
Wadsworth Canyon
Schoolhouse Springs
Alpine Cemetery
Hogs Hollow
Phelps Can
Wide Hollow
The Cove
UTAH WASATCH RANGE
SPNM
RNA
RMA
RCO
RBA
RDA
MU
SNC SKI AREA
ALTA SKI AREA
BRIGHTON SKI AREA
ROS CLASSES

ABSTRACT

The outdoor recreation situation on the Salt Lake Ranger District of the Wasatch National Forest is unique in its close proximity to a large population center. Expected increases in visitor use, problems involved, and possible solutions are discussed. One solution being the use of the Recreation Opportunity Spectrum to inventory the capacity of the various types of recreation available. The methodology, use, and characteristics of the ROS are described as it pertains to the Tri Canyon Area of the District. Also considered are factors defining outdoor recreation opportunities and the three components of the ROS classes: activity opportunitites, recreation settings, and experience opportunities.

Problems with ROS

1. Time and money availalbe for data collection.

2. Qualified personnel for data collection.

3. Uniformity in applying the system along with better instructions and definitions of terms.

4. Establishment of new capacity coefficient values for use on this District. Present capacity coefficients do not provide a realistic figure in PAOT/acre for the various classes in the Tri-Canyon area.

5. Present day use figures and projected demand figures are lacking.

6. Relating ROS to social carrying capacities.

Needed most are clear, concise instructions for applying ROS to the forests. Consideration must be made for the resource emphasis of the individual forests and districts. Criteria set up should be objective with as few subjective decisions as possible. Doing this will enhance uniformity in applying ROS to the forest and will allow the making of changes somewhat easier.

These concerns should come from the National level but not before the local level has had an opportunity to submit its recommendations.